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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/050,808 03/30/98 MACHIDA

Y MAT-5860

EXAMINER

WM02/1205

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ART UNIT

PAPER NUMBER

2613

DATE MAILED:

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

SM

Office Action Summary	Application No. 09/050,808	Applicant(s) MACHIDA, YUTAKA	
	Examiner Allen Wong	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2000.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- | | |
|---|--|
| 15) <input type="checkbox"/> Notice of References Cited (PTO-892) | 18) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 16) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 19) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 17) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 20) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The copy of the preliminary amendment filed on June 15, 1998 has been received. The examiner acknowledges the corrections.

Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

Response to Arguments

Applicant's arguments filed 9/28/00 have been received, fully read and considered but they are not persuasive.

As for claims 1-6, on page 8, lines 12-14 of remarks' section, applicant mentions that "Yamaguchi et al. do not disclose or suggest reconstructing a pixel block of a present frame by applying motion vectors of the present frame to previously decoded frames stored in memory." The examiner respectfully disagrees. From perusing figure 7, Yamaguchi discloses a decoder that decodes the image data with the decoder elements 111 and 112. Then the decoded image data is stored in memory element 130. Next, the motion compensation section element 113 applies the motion vectors of the present frame to the decoded frames stored in memory element 130 for reconstructing pixel block of the present frame. Motion compensators are inherently known to produce motion vectors and applying motion vectors to adjacent pixel blocks is one possible way to reconstruct a pixel block of the present frame because it is

efficient. Therefore, Yamaguchi teaches the limitation of "reconstructing a pixel block..." as disclosed by the applicant.

Regarding claim 9, on applicant's remarks page 9, lines 3-7, applicant mentions that "Yamaguchi et al. do not disclose reconstructing a pixel block of a present frame by the application of motion vectors of the present frame to previously decoded frames, but rather, applying motion vectors to adjacent pixel blocks." The examiner respectfully disagrees. Claim 9 is rejected for the same reasons as presented above in the "Response to Arguments" section for claims 1-6. Also, see 102(e) rejection below.

With regards to remarks on claims 7, 8, 10 and 11, these claims are rejected for the same reasons as disclosed below in the 103(a) rejection. Memory is an inherent feature, if not, then memory is an obvious feature that can be manipulated, by one of ordinary skill in the art, to accommodate to one's information storing needs for convenience and data loss prevention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-6 and 9 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Yamaguchi (5,737,022).

Regarding claim 5, discloses a moving image signal decoding apparatus comprising:

variable length code decoding means (fig.9A, element 102) for decoding at least two motion vectors relating to the present processing pixel block;

motion compensation means (fig.7, elements 113, 141 and 144) for compensating the motion of a previously coded frame with respect to each one of said at least two motion vectors, and generating at least two predicted images relating to the present processing pixel block;

bit error detecting means (fig.7, element 100 is the error detection means, in fig. 9A, element 102 determines if an error exists and if an error does exist, then the information is supplied to element 103 for flagging the error) for detecting a bit error from the output of said variable length code decoding means;

memory means (fig.7, element 120) for storing the bit error of said bit error detecting means; and

predicted image selecting means (fig.7, element 150; a selector does recognize whether decoding error exists and then selects the predicted image to be used in reconstructing the present processing pixel block) for recognizing presence or absence of decoding error contained in said at least two predicted images, and selecting the predicted image to be used in reconstruction of the present processing pixel block.

Note claims 1, 2 and 6 have similar corresponding elements.

Regarding claim 9, Yamaguchi discloses a moving image signal coding apparatus comprising:

motion vector detecting means (fig.24, element 710) for detecting at least two motion vectors relating to the present processing pixel block;

motion compensation means (fig.24, element 730) for issuing plural predicted images based on stored images from the output of said motion vector detecting means; and

intra/inter judging means (fig.24, elements 740 and 750 form an intra/inter judging means for determining whether the present processing pixel block when the correlation of two or more predicted images compensated of motion by said two or more motion vectors as the output of said motion compensation means is high or low) for inter-coding the present processing pixel block when the correlation at least two predicted images compensated of motion by said at least two motion vectors as the output of said motion compensation means is greater than a predetermined value, and intra-coding the present processing pixel block when the correlation of said at least two predicted images is less than a predetermined value.

Note claims 3 and 4 have similar corresponding elements.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaguchi (5,737,022).

As for claims 7 and 8, although Yamaguchi does not specifically disclose the memory (fig.7, element 120) used to store bit errors of each frame into a map format, it would have been obvious to one of ordinary skill in the art to divide any memory into any number of divisible parts so important video information could be organized and stored properly.

Regarding claims 10 and 11, Yamaguchi discloses an adder (fig.7, element 770) which is equivalent to a predicted image combining means since images are being added. Also, Yamaguchi discloses a subtracter (fig.7, element 760) which functions as a prediction error calculating means for obtaining a prediction error. Although Yamaguchi does not specifically use the term "variance" when the intra/inter judging means compare the predictive error data and the present processing pixel block, it is well known that the term "difference" is equivalent to the term "variance" and that the intra/inter judging means does compare the differences between the present processing pixel block and the prediction error from the output of the prediction error calculating means to decide on the next course of action (see fig.24).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 9-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

AW
November 28, 2000


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600